UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER OF PATENTS AND TRADEMARKS
Washington, D.C. 20231
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/443,692	11/19/1999	TAKESHI ANDO	13191	7589

23389   7590   01/16/2003

SCULLY SCOTT MURPHY & PRESSER, PC
400 GARDEN CITY PLAZA
GARDEN CITY, NY   11530

EXAMINER
LEE, TIMOTHY L

ART UNIT	PAPER NUMBER
2697	

DATE MAILED: 01/16/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 07-01)

Office Action Summary	**Application No.** 09/443,692	**Applicant(s)** ANDO, TAKESHI	
	Examiner Timothy Lee	**Art Unit** 2697	

-- *The MAILING DATE of this communication appears on the cover sheet with the correspondence address* --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _3_ MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____ .

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) _1-9_ is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) _1-9_ is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on _19 November 1999_ is/are: a)☒ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

    If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☒ All b)☐ Some * c)☐ None of:

        1.☒ Certified copies of the priority documents have been received.

        2.☐ Certified copies of the priority documents have been received in Application No. _____ .

        3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

    a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☒ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _5-7_ .

4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .

5) ☐ Notice of Informal Patent Application (PTO-152)

6) ☐ Other: .

DETAILED ACTION

Specification

1.   Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

Claim Rejections - 35 USC § 112

2.   The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3.   Claims 7 and 8 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

4.   Regarding claims 7 and 8, the phrases "such as" or "so forth" render the claim indefinite because it is unclear whether the limitations following the phrase are part of the claimed invention. See MPEP § 2173.05(d).

5.   Claim 4 recites the limitation "the redundancy bit" in line 14. There is insufficient antecedent basis for this limitation in the claim. Claim 6 recites the limitation "said data size and said utilization demand" in line 9. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 102

6.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the

basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

7.   Claims 1-9 are rejected under 35 U.S.C. 102(e) as being anticipated by Tiedemann, Jr. et

al. (US 5,914,950), herein referred to as Tiedemann.

8.   Regarding claim 1, Tiedemann discloses a communication system capable of variable

rate transmission. Based on collected information and system goals, the channel scheduler

assigns the maximum transmission rate (transmitting a data size and a utilization demand of a

maximum rate). The channel scheduler then waits until the next scheduling period and assigns a

new rate based on the new collected information. In this manner, the maximum rate can be

variable (variably changing a transmission rate according to the maximum rate). See Fig. 7, and

col. 9, lines 24-54.

9.   Regarding claim 2, it is inherent in a CDMA network that remote stations will send a

transmission request demand when they are ready to transmit data (receiving a transmission

demand). Based on collected information and system goals, the channel scheduler assigns the

maximum transmission rate—some of this collected data and system goals can include channel

condition and a priority list of required performance (determining maximum rate by taking

account of radio wave propagation condition). See col. 19, lines 14-29, and col. 18, lines 24-30.

The channel scheduler is responsible for sending the maximum rate information (notifying said

mobile station of said maximum rate). See Fig. 7, and col. 9, lines 47-49.

10.   Regarding claim 3, based on collected information and system goals, the channel

scheduler assigns the maximum transmission rate (transmitting a data size and a utilization

demand of a maximum rate). See Fig. 7, and col. 9, lines 24-54.

11.   Regarding claim 5, the frame error rate can also be taken into consideration, and

inherently, in order to find the error rate, you must be able to detect the transmission conditions

and quality of the transmission path. See col. 18, lines 10-15. The system uses collected

information to determine the rate needed by each channel (transmission rate detecting means),

and it assigns a maximum rate based on this information (a maximum rate control information

determining means). See Fig. 7, and col. 9, lines 24-54. The channel scheduler is responsible

for sending the maximum rate information (notifying said mobile station of said maximum rate).

See Fig. 7, and col. 9, lines 47-49.

12.   Regarding claim 6, the hardware supports transmission of both data and voice

communication over the CDMA network (voice coding device; a data packeting device). See

col. 8, lines 9-14, and Fig. 2. The scheduling system disclosed in Tiedemann can be applied to

any communication system capable of variable rate communication—high speed data

transmission occurs over a single variable rate channel (variable rate communication path coding

device). See col. 22, lines 53-66. Error detection is handled by the CRC bits appended to each

frame (conducting error correction coding). See col. 27, lines 63-67, and col. 28, lines 1-7.

Based on collected information and system goals, the channel scheduler assigns the maximum

transmission rate—some of this collected data and system goals can include channel condition

and a priority list of required performance (determining maximum rate by taking account of

radio wave propagation condition). The channel scheduler is responsible for sending the

maximum rate information (notifying said mobile station of said maximum rate). See Fig. 7, and

col. 9, lines 47-49. The channel scheduler then waits until the next scheduling period and

assigns a new rate based on the new collected information. In this manner, the maximum rate

can be variable (variably changing a transmission rate according to the maximum rate). See Fig.

7, and col. 9, lines 24-54.

13.   Regarding claim 4, the hardware supports transmission of both data and voice

communication over the CDMA network (voice coding device; a data packeting device). See

col. 8, lines 9-14, and Fig. 2. The scheduling system disclosed in Tiedemann can be applied to

any communication system capable of variable rate communication—high speed data

transmission occurs over a single variable rate channel (variable rate communication path coding

device). See col. 22, lines 53-66. Fig.5 shows a modulator for modulating the signal; in

modulating, the system also adjusts for gain and power. See Fig. 5, Fig. 2, and col. 25, lines 24-

46. Based on collected information and system goals, the channel scheduler assigns the

maximum transmission rate (transmitting a data size and a utilization demand of a maximum

rate; a maximum rate controlling device). The channel scheduler then waits until the next

scheduling period and assigns a new rate based on the new collected information. In this

manner, the maximum rate can be variable (variably changing a transmission rate according to

the maximum rate). See Fig. 7, and col. 9, lines 24-54. The CRC bits offer error detection

(redundancy bit); framing and slotting are a part of CDMA communications. The base station is

able to handle both voice and packet-based information. See Fig. 2, and col. 8, lines 12-14. The

remote station is allowed to transmit up to higher speeds, up to a maximum scheduled

transmission rate, for high speed transmission (a continuous data content demand in order to

transmit a continuous data content). See col. 23, lines 3-13. Fig.5 shows a modulator for

modulating the signal. The system also adjusts for gain and power. See Fig. 5, Fig. 2, and col.

25, lines 24-46.

14.   Regarding claim 7, Fig. 2 shows a demodulation unit. See col. 7, lines 40-51. The

scheduling system disclosed in Tiedemann can be applied to any communication system capable

of variable rate communication—high speed data transmission occurs over a single variable rate

channel (variable rate communication path). See col. 22, lines 53-66. Based on collected

information and system goals, the channel scheduler assigns the maximum transmission rate

(transmitting a data size and a utilization demand of a maximum rate; a maximum rate

controlling; a maximum rate designation information). See Fig. 7, and col. 9, lines 24-54. The

system can handle both voice and data traffic in transmission, so inherently, in receive mode, the

system should be able to decode the voice signals and assemble the data packets together; the

system should also be able to isolate these information sources if it is to be a working system

(information source isolating device; a voice decoding device; a continuous data assembling

device). See also col. 7, lines 39-51.

15.   Regarding claim 8, Fig. 2 shows a demodulation unit. See col. 7, lines 40-51. The

scheduling system disclosed in Tiedemann can be applied to any communication system capable

of variable rate communication—high speed data transmission occurs over a single variable rate

channel (variable rate communication path). Based on collected information and system goals,

the channel scheduler assigns the maximum transmission rate—some of this collected data and

system goals can include channel condition and a priority list of required performance

(determining maximum rate by taking account of radio wave propagation condition; a maximum

rate control). See col. 19, lines 14-29, and col. 18, lines 24-30. The system uses collected

information to determine the rate needed by each channel (transmission rate detecting means).

16.   Regarding claim 9, The scheduling system disclosed in Tiedemann can be applied to any

communication system capable of variable rate communication—high speed data transmission

occurs over a single variable rate channel (variable rate communication path). The CRC bits

offer error detection (redundancy bit); framing and slotting are a part of CDMA communications.

Fig.5 shows a modulator for modulating the signal. See Fig. 5, Fig. 2, and col. 25, lines 24-46.

CDMA inherently allows for the multiplexing of signals onto each channel.

Conclusion

17.   The prior art made of record and not relied upon is considered pertinent to applicant's

disclosure. Marchetto et al. (US 5,914,959), Proctor et al. (US 5,898,696), Chen et al. (US

5,923,650), and Sereno et al. (US 5,490,136) disclose controlling transmission rates in

communication systems.

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Timothy Lee whose telephone number is (703)305-7349. The

examiner can normally be reached on M-F, 9-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Ricky Ngo can be reached on (703)305-4789. The fax phone numbers for the

organization where this application or proceeding is assigned are (703)746-9420 for regular

communications and (703)746-9420 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding

should be directed to the receptionist whose telephone number is (703)305-4700.

TLL
January 6, 2003

RICKY NGO
PRIMARY EXAMINER